**Eratostene 2015**

**1. Measurements**

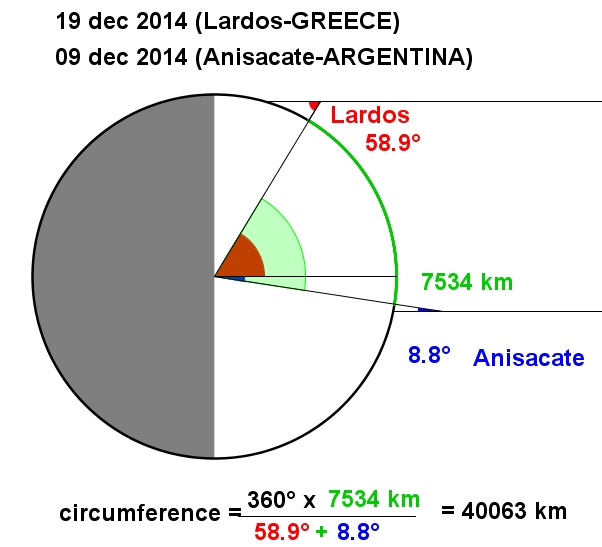
**The children measure the longtitude of a pole in a try to fingure out the circumference of the earth.**

# ****It's something simple... You just need a gnomon, a meter and of course a sunny day!!!****

# ****Once you find the longest possible shadow of the gnomon ( at midday= the hour that the sun is on the highiest position from earth) you should estimate the angle φ, as picture shows.****



**At the end you should find another school that did all that at the same day, so as to compare the angle and find the difference between the two angles. Using the rule of 3 everyone can estimate how big is our world!!! Watch below to understand!!!**



# 2. ****We gothered all the pupils of the four classes that participate and did the follwing measurement:****

# We started measuring at noon (12 ) . Our pole is 78 cm and the longtitude of its shadow was first 69 cm. We measure every 2 minutes to see that the shadow becomes shorter.

# All that until 12:18 that the shadow started to become longer!!!. We then knew that we found the midday (12:18 ) and that the longest shadow was 70.2 cm. So the angle that we searched was 42° .

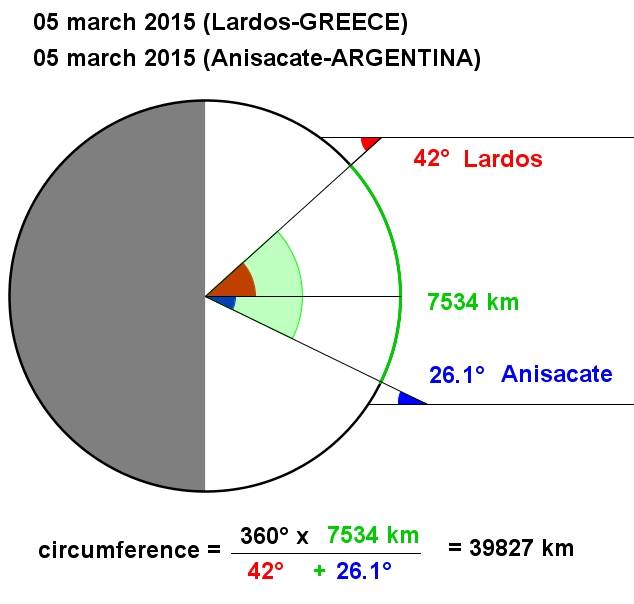


# ****We now should find another school who did the same at the same day so as to find the circumference of the earth.****

# ****That after all did Eratosthenes , didn't he?****

# ****And of course, the partner school of Anisacate in Argentina helped us ... again!!!****

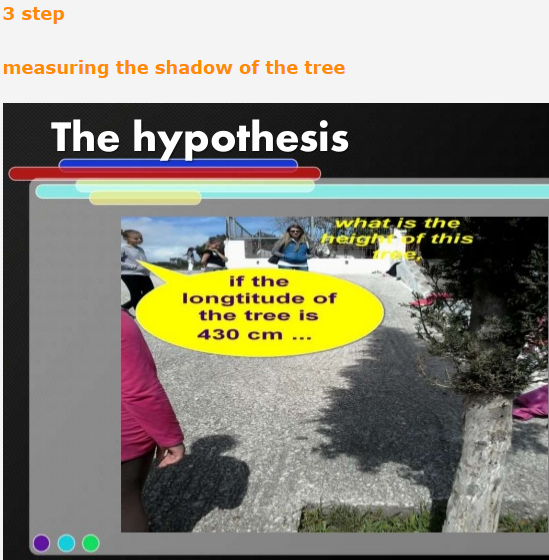
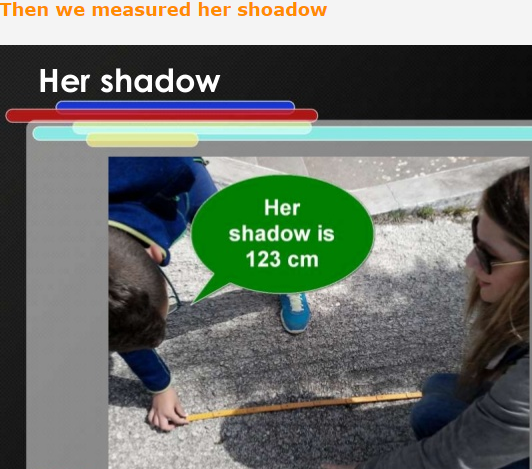
# ****Here are the results...****

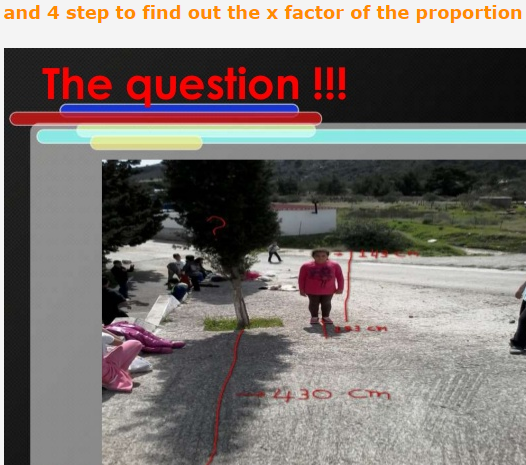


**3. rule of 3 (umbra unui arbore)**

# ****Eratosthenes has inspired us !!!****

## ****We think that we could also use  sun rays for solving mathematic cases. We were on school excursion , when a student had a brilliant idea. He thougth that he could compare his shadow with the one of a tree. And somehow our mathematic case appeared...****





# ****and now let's solve the problem using the rule of 3!!!****